

COMMONWEALTH OF PUERTO RICO / OFFICE OF THE GOVERNOR

**TITLE V PROPOSED OPERATING PERMIT
AIR QUALITY AREA
ENVIRONMENTAL QUALITY BOARD**



Permit Number:	PFE-TV-3241-26-0397-0026
Operating Permit application received:	March 26, 1997
Issue and/or Effective Date:	January 30, 2009
Expiration Date:	January 30, 2014

In accordance with the provisions of Part VI of the PR Regulation for the Control of Atmospheric Pollution (RCAP) for Puerto Rico and the provisions of the 40 CFR Part 70,

**ESSROC SAN JUAN, INC.
DORADO, PUERTO RICO**

hereinafter referred to as The Permittee, or **Essroc** is authorized to operate a stationary source of air contaminants consisting of emissions units described in this permit. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. All conditions in this permit are federally enforceable and state enforceable unless otherwise specified. Requirements which are only state enforceable are identified in the permit. A copy of this permit shall be kept on-site at the above named facility at all times.

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Section I - General Information

A. Facility Information

Company Name:	Essroc San Juan, Inc.
Mailing Address:	P.O. Box 366698
City:	Dorado
State:	Puerto Rico
Zip Code:	00936-6698
Plant Name:	Planta de Dorado
Plant Location:	Road 2, Km 26.7 Dorado, Puerto Rico
Plant Mailing Address:	P.O. Box 366698 San Juan, PR 00936-6698
Responsible Official:	Mr. Lawrence Evans Operations Vicepresident
Phone:	(787) 721-5878
Technical Contact:	Miss. Nivia Ayala Environmental Manager
Phone:	(787) 721-5878
Fax:	(787) 270-2288
Primary SIC Code:	3241

B. Process Description

Essroc is an industry dedicated to the manufacture of portland cement. The company is located at the end of the Guarisco Way in Barrio Espinosa of the Municipality of Dorado.

The production of portland cement is a process of four general steps: acquisition of raw material, preparation of the raw materials for pyroprocessing, pyroprocessing of the raw materials to form Portland cement clinker, and grinding of the clinker to portland cement.

The fundamental raw materials for the manufacture of the portland cement are limestone, clay and iron. The selective operation of the deposits of raw material is made by means

of techniques of explosion and extraction by heavy machinery. Essroc acquires most of its raw material of an adjacent quarry and part of the materials is acquired by purchase to other companies.

The materials are grinded, mixed in defined proportions and crushed in a primary crusher followed by a secondary crusher. The intention is to reduce the size of the raw material to diameters that can be fed to the Raw Mill. The crushed material is stored in a hangar where it is classified according to its quality.

The crushed material is fed to the mill, by means of dosifiers that allow permanent corrections to obtain an optimal quality. The product of this milling is called raw meal and is sent to the mixture silos, where a homogenization with air to pressure is made. Once finalized this process, it is directed to the storage silos.

The raw meal in the storage silos is fed to the kiln (rotary cylinder) that has a previous system of heating and precalcination of four stages, taking advantage of combustion gases allows an important reduction in the fuel consumption. The heating is carried out in the rotary kiln by means of the coal and/or used oil combustion.

In its route to the furnace the material continues its heating until arriving at approximately 2,700- 2,800 °F, that is to say, to the temperature of sintering to which clinker takes place. The several and complex chemical reactions necessary to produce clinker take place in this kiln. Clinker is the base of the portland cement. It is a particle of gray color of a size that fluctuates between 1/8 and 2 inches. After obtained clinker it is mixed with other materials and fed to the Clinker Mill, obtaining cement as the final product. The different types of cement are obtained adding in the milling certain proportions of gypsum, clinker, and other materials. The gypsum addition serves solely to regulate the time of setting of the cement.

The produced cements are transported to the respective silos of storage after verifying their quality during the milling process. The final product is dispatched and is commercialized in paper bags by means of automatic packing machines. Also cement in bulk is dispatched at two load facilities that fill tank trucks.

Essroc is considered a major source of emission since it has the potential to emit more than 10 tons per year of hydrogen chloride, more than 25 tons per year of a combination of hazardous atmospheric pollutants, and more than 100 tons per year of each one of the following criteria pollutants: sulfur dioxide (SO₂), oxides of nitrogen (NO_x) and particulate matter (PM) and carbon monoxide (CO).

Section II - Emission Units and Control Device Descriptions

The emissions units regulated by this permit issuance are the following:

Emission Units	Description	Control Device¹
F101	Quarry Drilling	None
F102	Quarry Blasting	None
F103	Quarry Ripping	None
F104	Raw Material Loading	None
F105	Quarry Haul Road	Wet suppression
F106	Raw Material Unloading to B01	None
F107	Apron Conveyor – B02	None
F108	Spillage Conveyor	None
F109	Cement Kiln Dust (CKD) Stockpile	None
F110	Silica Bearing Materials Stockpile	None
F111	Alternate Materials Stockpile	None
F112	Iron Ore Materials Stockpile	None
F113	Silica Hopper D13	None
F114	Silica Conveyor D12	None
EU201	Secondary Crusher MMD B05	CD201
EU202	Belt Conveyor B03M + Spill Conveyor B04	CD201
EU203	Belt Conveyor B06 + Spill Conveyor B07	CD201
EU204	Belt Conveyor B08	CD201
EU205	Belt Conveyor C13 + Spill Conveyor C14	None
EU206	Belt Conveyor C22 + Spill Conveyor C23	None

¹ See Appendix III for Control Devices Description.

Emission Units	Description	Control Device
EU207	Belt Conveyor C30 + Spill Conveyor C31	None
EU208	Hooper D01/ Chain Feeder D02	None
EU209	Belt6 Conveyor D02	None
EU210	Belt Conveyor C16 + Spill Conveyor C17	None
EU211	Belt Conveyor C18 + Spill Conveyor C19	None
EU212	Belt Conveyor C26 + Spill Conveyor C27	None
EU213	Hopper D04/ Chain Feeder D05	None
EU214	Belt Conveyor D06	None
F201	Crusher B03	None
F203	Stacker B11	None
F204	Low Limestone Stockpile	None
F205	Low Limestone Reclaimer C12	None
F210	High Limestone Stockpile	None
F211	High Limestone Reclaimer C15	None
F221	Belt Conveyor D21	None
F222	Hopper / Chain Feeder E01	None
F223	Iron Ore Hopper D11	None
F224	Iron Ore Conveyor D13	None
EU301	Roller Mill Circuit	CD501 /CD502
EU302	Auxiliary Air Heater	CD501 / CD502
EU303	Four Cyclones	CD501 / CD502
EU304	Raw Mix Transfer Conveyors/ Air Slides / Aeropol	CD301
EU305	Homogenizing Silos G01	CD302
EU306	Homogenizing Silos G06	CD302
EU307	Kiln Feed System	CD303

Emission Units	Description	Control Device
EU308	CKD Silo	CD502
EU309	Cyclone F09	CD301
EU401	Coal Crusher F1M01	CD401
EU402	Coal Belt F1A02	CD401
EU403	Coal Storage Silo F1U01 and Vibrator K1A01	CD401
EU404	Coal Transfer Conveyor K1A02	CD401
EU405	Coal Mill Circuit	CD404
EU406	Coal Bins and Conveying	CD405
F401	Coal Stockpile	None
F402	Coal Unloading to Hopper	None
F403	Coal Transfer Conveyor F1A01	None
EU501	Preheater/ Kiln 3	CD501/ CD502
EU502	Clinker Cooler K06	CD501/ CD 502 CD404
EU601	Conveyor L01	CD601 / CD602/ CD603
EU602	Conveyor L02	CD603
EU603	Clinker Conveyor I (K377)	CD603
EU604	Clinker Conveyor II (K384)	CD603
EU605	Clinker Elevator I (K378)	CD603/ CD605
EU606	Clinker Elevator II (K379)	CD603/ CD605
EU607	Clinker Unloading	CD604
EU608	Marginal Conveyor (K393)	CD604/ CD603
EU609	Clinker Conveyor No. 3	CD604
EU610	Clinker Storage Bin	CD604
EU611	Clinker Silos	CD605

Emission Units	Description	Control Device
EU612	Gypsum Elevator and Conveyor	CD605
EU613	Gypsum Silo	CD605
F601	Clinker Stockpile	None
F602	Gypsum Stockpile	None
F603	Gypsum Unloading/ Conveying	None
F604	Gypsum Crusher	None
EU701	Clinker Weigh Feeder 1 or 2 (FM2)	CD701
EU702	Gypsum Weigh Feeder FM2	CD701
EU703	Conveyor I	CD701
EU704	Gypsum Conveyor (FM2)	CD701
EU705	Conveyor II	CD701
EU706	Conveyor II Transfer Tower	CD702
EU707	Conveyor III FM2	CD704
EU708	Clinker B Transfer Conveyor	CD703
EU709	Finish Mill 2	CD704
EU710	Mill 2 Conveying and Separator	CD704
EU711	Gypsum Weigh Feeder FM3	CD705
EU712	Gypsum Conveyor FM3	CD705
EU713	Clinker Weigh Feeder 1 or 2 (FM3)	CD705
EU714	Conveyor II FM3	CD705
EU715	Finish Mill 3	CD706
EU716	Mill 3 Conveying and Separator	CD707
F701	Clinker B Stockpile	None
F702	Clinker B Unloading	None
F703	Clinker B Chain Feeder	None

Emission Units	Description	Control Device
EU801	Five Cement Silos	CD801
EU802	Truck Loadout 2	CD802
EU803	Truck Loadout 4	CD803
EU804	Screw Conveyors	CD801
EU805	FLS Cement Packing Circuit	CD804
EU806	Screw Conveyor	CD805
EU807	Bucket Elevator	CD805
EU808	Car Ventomatic Cement Packing Circuit	CD806
EU810	Cement Silo 6	CD810
EU811	Weighted Hopper	CD811
EU812	Truck Loadout 6A	CD812
EU813	Truck Loadout 6B	CD813
F801	FLS Packaged Cement Storage	None
F802	Car Ventomatic Packaged Cement Storage	None
F803	Plant Haul Road	Wet suppression

Section III General Permit Conditions

1. **Sanctions and Penalties:** Essroc is obligated to comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Any violation of the terms of this permit will be subject to administrative, civil or criminal penalties as established in the Puerto Rico Environmental Public Policy Act, Article 16 (Act Number 416, September 22, 2004, as amended).
2. **Right of Entry:** As specified under Rules 103 and 603(c)(2) of the RCAP, Essroc shall allow the Board or an authorized representative, upon presentation of credentials and other documents as may be required by law, to perform the following activities:
 - a) Enter upon Essroc's premises where an emission source is located or where emissions related activities are conducted, or where records must be kept under the conditions of this permit, under the RCAP, or under the Clean Air Act;

- b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit, under the RCAP, or under the Clean Air Act;
 - c) Inspect and examine any facility, equipment (including monitoring and air pollution control equipment), practices or operations (including QA/QC methods) regulated or required under this permit; as well as sampling emissions of air quality and fuels; and
 - d) As authorized by the Clean Air Act and the RCAP, to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.
3. **Sworn Statement:** All reports required pursuant Rule 103(D) of the RCAP (i.e., semiannual monitoring reports and annual compliance certification) shall be submitted together with a sworn statement or affidavit by the Responsible Official or a duly authorized representative. Such sworn statement shall attest to the truth, correctness and completeness of such records and reports.
4. **Data Availability:** As specified under Rule 104 of the RCAP, all emission data obtained by or submitted to the Board, including data reported pursuant to Rule 103 of the RCAP, as well as that obtained in any other way, shall be available for public inspection and may also be made available to the public in any additional manner that the Board may deem appropriate.
5. **Emergency Plan:** As specified under Rule 107 of the RCAP, Essroc shall have available an Emergency Plan which must be consistent with adequate safety practices, and provides for the reduction or retention of the emissions from the plant during periods classified by the Board as air pollution alerts, warnings or emergencies. These plans shall identify the emission sources, include the reduction to be accomplished for each source, and the means by which such reduction will be accomplished. These plans will be available for any representative of the Board at any time.
6. **Control Equipment:** Essroc shall comply with Rule 108 of the RCAP, as follows:
- (A) All air pollution control equipment or control measures shall provide for continuous compliance with applicable rules and regulations. Such equipment or measures shall be installed, maintained, and operated according to those conditions imposed by the Board, within the specified operating limitations of the manufacturer.
 - (B) The collected material from air pollution control equipment shall be disposed in accordance with applicable rules and regulations. The removal, manipulation, transportation, storage, treatment or disposal will be done in such or manner that shall not to produce environmental degradation, and in accordance with applicable rules and regulations.
 - (C) The Board may require, when deemed appropriate to safeguard the health and welfare of human beings, the installation and maintenance of additional, complete and separate air pollution control equipment of a capacity equal to the capacity of the primary control equipment. Furthermore, the Board may require that such additional air pollution control

equipment be operated continuously and conjunctionally with the primary air pollution control equipment.

(D) All air pollution control equipment shall be operated at all times while the source being controlled is in operation.

(E) In the case of a shutdown of air pollution control equipment for the necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Board at least three days prior to the planned shutdown. Such prior notice shall include, but is not limited to the following:

- (1) Identification of the specific source to be taken out of service with its location and permit number.
- (2) The expected length of time that the air pollution control equipment will be out of service.
- (3) The nature and quantity of emissions of air pollutants likely to be permitted during the shutdown period.
- (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.
- (5) The reasons why it will be impossible or impractical to shutdown the operating source during the maintenance period.

(F) Essroc shall to the extent possible, maintain and operate at all times, including periods of start-up, shutdown and malfunction, any affected source and the associated air pollution control equipment, in a manner consistent with the original manufacturers design specifications and in compliance with applicable rules and regulations and permit conditions.

(G) Essroc shall maintain copies of all the monthly calibrations and inspections of the control equipments such as baghouses and scrubbers. Essroc shall record in a logbook all the periods when the control equipment is in shutdown and the process continues its operation. All the records shall be available to the EQB personnel.

7. **Compliance Certification:** As specified under Rules 112(B) and 603(c)(5) of the RCAP, Essroc shall submit a compliance certification, including the annual emissions calculations for the previous year, on the first day of April of each year. The compliance certification shall be submitted to both the Board and the EPA². It shall include, but is not limited to, the following information:

² The certification to the EQB shall be mailed to: Manager, Air Quality Area, P.O. Box 11488, San Juan, PR 00910. The certification to the EPA shall be mailed to: Chief, Enforcement and Superfund Branch CEPD, US EPA – Region II, Centro Europa Building, 1492 Ponce de Leon Ave. Stop 22, Santurce PR. 00909.

- a) identification of the applicable requirement that is the basis of the certification;
- b) the method used to determine the compliance status of the source;
- c) the compliance status;
- d) whether compliance is continuous or intermittent;
- e) such other facts as the EQB may require; and
- f) for purposes of (b) and (d) of this section, Essroc shall identify the methods or other means used to determine the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. If necessary, Essroc shall also identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information. For purposes of paragraph (c) of this section, Essroc shall identify each deviation and take it into account in the compliance certification.

8. **Regulation Compliance:** As specified under Rule 115 of the RCAP, any violation to the RCAP, or to any other applicable rule or regulation, shall be grounds for the Board to suspend, modify, or revoke any relevant permit, approval, variance or other authorization issued by the Board.

9. **Location Approval:** As specified under Rule 201 of the RCAP, nothing in this permit shall be interpreted as authorizing the location or construction of a major stationary source, or the modification of a major stationary source, or a major modification of a significant source, without obtaining first a location approval from the Board and without first demonstrating compliance with the National Ambient Air Quality Standards (NAAQS). This permit does not allow the construction of new minor sources without the required permit under Rule 203 of the RCAA.

10. **Open Burning:** As specified under Rule 402 of the RCAP, Permittee shall not cause or permit the open burning of refuse in their premises except as established under Rule 402 (E) of the RCAP.

11. **Particulate Fugitive Emissions:** As established in Rule 404 of the RCAP, Essroc shall not cause or permit:

- a) any materials to be handled, transported, or stored in a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished, without taking reasonable precautions to prevent particulate matter from becoming airborne.
- b) the discharge of visible emissions of fugitive dust beyond the boundary line of the property on which the emissions originate.

12. **Objectionable Odors:** As specified under Rule 420 of the RCAP, Essroc shall not cause or permit emissions to the atmosphere of any matter which produces an *objectionable* odor that can be perceived in an area other than that designated for industrial purposes. Essroc shall demonstrate compliance with Rule 420 (A)(1) as follows: if malodors are detectable beyond Essroc property perimeter, and complaints are received, Essroc shall investigate and take measures to minimize and/or eliminate the malodors, if necessary. [This condition is enforceable only by the State].
13. **Permit Renewal Applications:** As established under Rule 602 (a)(1)(iv) of the RCAP, Essroc's applications for permit renewal shall be submitted at least 12 months prior to the date of permit expiration. A responsible official must certify all required applications consistent with paragraph (c)(3) of Rule 602.
14. **Permit Duration:** As specified under Rule 603 of the RCAP, the following terms will apply during the duration of this permit:
- a) Expiration: This authorization shall have a fixed term of 5 years. The expiration date will be automatically extended until the Board approves or denies a renewal application (Rule 605(c)(4)(ii) of the RCAP) but only in those cases where Essroc submits a complete renewal application at least 12 months before the expiration date. [Rules 603 (a)(2), 605 (c)(2), and 605(c)(4) of the RCAP]
 - b) Permit Shield: As specified under Rule 605 (c)(4)(i) of the RCAP, the permit shield may be extended until the time the permit is renewed if a timely and complete renewal application is submitted.
 - c) In case that this permit is subject to any challenge by third parties, the permit shall remain in effect until the time it is revoked by a court of law with jurisdiction in the matter.
15. **Recordkeeping Requirement:** As established under Rule 603(a)(4)(ii) of the RCAP, Essroc shall retain records of all required monitoring data and support information for a period of 5 years from the date of the monitoring sample, measurement, report, or application.
16. **Reporting Requirement:** As established under Rule 603(a)(5)(i) of the RCAP, Essroc shall submit reports of all required monitoring every 6 months, or more frequently if required by the Board or any other underlying applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as established under Rule 602(c)(3) of the RCAP.
17. **Deviations Reporting due to Emergencies:**³ As specified under Rule 603(a)(5)(ii) of the RCAP, any deviation resulting from an upset (such as sudden malfunction or breakdown) or emergency conditions, as defined in Rule 603(e) of the RCAP, must be reported

³ Except the sources affected by 40 CFR part 63, subpart LLL (Portland Cement MACT) and included in the SSMP that must comply with 40 CFR §63.6(e)(3) specifically.

within the next 2 working days. Such notification may be used to assert an affirmative defense upon an enforcement action against Essroc. If Essroc raises the emergency defense upon an enforcement action, Essroc shall demonstrate that such deviation happens due to an emergency and that the Board was adequately notified. If such emergency deviation last for more than 24 hours, the affected units, may be operated until the end of the cycle or 48 hours, what occurs first. The Board may only extend the operation of an emission source in excess of 48 hours, if the source demonstrates to the Board's satisfaction that the National Air Quality Standards have not been exceeded and that there is no risk to the public health.

18. Deviation Reporting (Hazardous Air Pollutants): The source (except the sources affected by 40 CFR part 63, subpart LLL (Portland Cement MACT) and included in the SSMP that must comply with 40 CFR §63.6(e)(3) specifically) shall shut down its operations immediately or shall act as specified in its Emergency Response Plan (established in Rule 107 (C) of the RCAP), when such Plan has demonstrated that there is no significant impact at the fence line. [This condition is enforceable only by the State]. Pursuant to Rule 603 (a)(5)(ii)(b), a notification will be required if a deviation occurs that results in the release of emissions of hazardous air pollutants for more than an hour in excess of the applicable limit. Essroc shall notify the Board within 24 hours of the deviation. For the discharge of any regulated air pollutant that continues for more than 2 hours in excess of the applicable limit, Essroc shall notify the Board within 24 hours of the deviation. Essroc shall also submit to the Board, within seven (7) days of the deviation, a detailed written report, which includes probable causes, time and duration of the deviation, remedial action taken, and steps, which are being taken to prevent a reoccurrence.

19. Severability Clause: As established under Rule 603(a)(6) of the RCAP, the clauses in this permit are severable. In the event of a successful challenge to any portion of the permit in an administrative or judicial forum, or in the event any of its clauses is held to be invalid, all other portions of the permit shall remain valid and effective, including those related to emission limits, terms and conditions, be they specific or general, as well as monitoring, record keeping and reporting requirements.

20. Permit Noncompliance: As established under Rule 603(a)(7)(i) of the RCAP, Essroc must comply with all conditions of this permit. Permit noncompliance constitutes a violation of the RCAP and will be grounds for taking the appropriate enforcement action, impose sanctions, revoke, terminate, modify, and/or reissue the permit, or to deny a permit renewal application.

21. Defense not Allowed: As specified under Rule 603(a)(7)(ii) of the RCAP, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

22. Permit Modification and Revocation: As specified under Rule 603(a)(7)(iii) of the RCAP, the permit may be modified, revoked, reopened, reissued, or terminated for cause.

The filing of a request by Essroc for a permit modification, revocation, reissuance, or

termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

- 23. Property Rights:** As specified under Rule 603(a)(7)(iv) of the RCAP, this permit does not convey any property rights of any sort, nor does it grant any exclusive privilege.
- 24. Obligation to Furnish Information:** As specified under Rule 603(a)(7)(v) of the RCAP, Essroc shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, Essroc shall also furnish to the Board copies of records required to be kept by the permit.
- 25. Changes in Operating Scenarios:** As specified under Rule 603(a)(10) of the RCAP, Essroc shall record in a logbook, contemporaneously with making a change from one operating scenario to another, the scenario under which it is operating. This logbook must be kept at Essroc's facility at all times.
- 26. Prohibition on Default Issuance:** As specified under Rule 605(d) of the RCAP, it shall never be considered that a permit has been issued by default as a result of the Board's failure to take final action on a permit application within 18 months as of the application completeness date. The Board's failure to issue a final permit within 18 months should be treated as a final action solely for the purpose of obtaining judicial review in a state court.
- 27. Administrative Permit Amendments and Permit Modifications:** As specified under Rule 606 of the RCAP, the permit shall not be amended nor modified unless Essroc complies with the requirements for administrative permit amendments and permit modifications as described in the RCAP.
- 28. Permit Reopenings:** As specified under Rule 608(a)(1), this permit shall be reopened and revised under the following circumstances:
- a) Whenever additional applicable requirements under any law or regulation become applicable to Essroc, when the remaining permit term is of 3 or more years. Such reopening shall be completed 18 months after promulgation of said applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to Rule 605(c)(4)(i) or Rule 605(c)(4)(ii) of the RCAP.
 - b) Whenever the Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.
 - c) Whenever the Board or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

29. Changes in Name and/or Ownership: This permit is issued to **Essroc San Juan, Inc.** In the event that the company and/or installation changes its name, the new responsible official must submit a sworn statement in which he/she accepts and promises to comply with all conditions of this permit. If the installation is transferred to a different owner, an administrative amendment application shall be submitted, which includes a written agreement containing the specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee.

30. Renovation/Demolition Work: Essroc shall comply with the provisions set forth in 40 CFR §61.145 and §61.150, and Rule 422 of the RCAP when conducting any renovation or demolition activities of asbestos containing materials at the facility.

31. Risk Management Plan: If during the effectiveness of this permit, Essroc is subject to the 40 CFR part 68, Essroc shall submit a Risk Management Plan according with the compliance schedule in the 40 CFR part 68.10. If during the effectiveness of this permit, Essroc is subject to the 40 CFR part 68, Essroc shall submit a compliance certification with the requirements of part 68 as part of the annual compliance certification required under 40 CFR part 70, including the recordkeeping and the Risk Management Plan.

32. General Duty Requirements: Essroc has the general obligation of identifying hazards which may result from accidental releases using appropriate hazard assessment techniques, design, maintain, and operate a safe facility and minimize the consequences of accidental releases if they occur as required in section 112(r)(1) of the Clean Air Act and Rule 107(D) of the RCAP.

33. Requirements for Refrigerants (Climatologic and Stratospheric Ozone Protection):

a) In the event that Essroc has equipment or appliances, including air conditioning units, which use Class I or II refrigerants as defined in 40 CFR part 82, subpart A, Appendices A and B, he/she shall take the necessary measures to ensure that all maintenance, service or repair services performed are done so according to the practices, certification and personnel requirements, disposition requirements, and recycling and/or recovery equipment certification requirements specified under 40 CFR part 82, subpart F.

b) Owners/ operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

c) **Service on Motor Vehicles:** If Essroc performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), Essroc is subject to all the applicable requirements as specified in 40 CFR part 82, subpart B, Servicing of Motor Vehicle Air Conditioners. The term motor vehicle as used in subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term MVAC as used in subpart B does not include the air-tight sealed

refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.

34. Labeling of Products Using Ozone-Depleting Substances: Essroc shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR part 82, subpart E.

- a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
- b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
- c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
- d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

35. Emergency Generators:

- a) The operation for each emergency generator identified as insignificant activity is limited to 250 hours per year. [PFE-26-0600-1107-II-C]
- b) Essroc shall keep an annual record of the hours of operation and fuel consumption for each generator. It shall be kept available at any time for inspection by EQB and EPA personnel.

36. Roof Surface Coating: This is a state-only requirement. Essroc shall not cause or permit the roof surface coating by applying hot tar or any other coating material containing organic compounds without previous notification to the Board. The use of used oil or hazardous waste for roof surface coating is prohibited.

37. Compliance Clause: Under no circumstances does compliance with this permit exempt Essroc from complying with all other applicable state or federal laws, regulations, permits, administrative orders or applicable court orders.

38. Emissions Calculations: Essroc shall submit, on the first day of April each year, the actual or permissible emissions calculations for the previous natural year. The emissions calculations shall be submitted on the forms prepared by the Board for this purpose and the responsible official must certify all the information submitted as true, correct and representative of the permitted activity. Essroc must make the applicable payment for the emissions calculations for the previous year on or before June 30 of each year.

39. Annual fee: As specified under Rule 610 of the RCAP, Essroc must submit an annual payment based on the emissions calculations for each regulated pollutant. The payment will be based on their actual emissions at a rate of \$37.00 per ton, unless the Board decides otherwise as permitted under Rule 610(b)(2)(iv) of the RCAP. This payment for the previous year must be made on or before June 30 of each year.

40. New or Amended Regulation: Whether a federal or state regulation is promulgated or amended and the facility is affected by it, the owner or operator shall comply with the requirements of the new or amended regulation

41. Reservation of Rights: Except as expressly provided in this Title V permit:

- a) Nothing herein shall prevent EPA or the Board from taking administrative enforcement measures or seeking legal or equitable relief to enforce the terms of the Title V permit, including but not limited to the right to seek injunctive relief, and imposition of statutory penalties, fines and/or punitive damages.
- b) Nothing herein shall be construed to limit the rights of EPA or the Board to undertake any criminal enforcement activity against Essroc or any person.
- c) Nothing herein shall be construed to limit the authority of EPA or the Board to undertake any actions in response to conditions that present an imminent and substantial endangerment to public health or welfare, or the environment.
- d) Nothing herein shall be construed to limit Essroc's rights to administrative hearing and judicial appeal of termination/ revocation/ disputes over modification/ denial actions in accordance with regulations and the Environmental Public Policy Act.

42. Source Modifications without a permit revision: According to Rule 607 of the RCAP, Essroc may perform:

- (a) Source changes
 - (1) Permitted sources may make Section 502(b)(10) changes without requiring a permit revision, if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions).
 - (i) For each such change, the facility must provide the Administrator and the Board with written notification in advance of the proposed changes, which shall be seven (7) days. The written notification shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The source, the Board, and EPA shall attach each such notice to their copy of the relevant permit.

- (ii) The permit shield described in paragraph (d) of Rule 603 shall not apply to any change made pursuant to section (a)(1) of Rule 607.
- (2) Permitted sources may trade increases and decreases in emissions in the permitted facility for the same pollutant, where the permit provides for such emissions trades without requiring a permit revision and based on the 7-day notice prescribed in section (a)(2) of Rule 607. This provision is available in those cases where the permit does not already provide for such emissions trading.
 - (i) Under paragraph (a)(2) of Rule 607, the written notification required shall include such information as may be required by the provision in the Puerto Rico State Implementation Plan (PR-SIP) authorizing the emissions trade, including when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which the source will comply using the emissions trading provisions of the PR-SIP, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply in the PR-SIP and that provide for the emissions trade.
 - (ii) The permit shield described in paragraph (d) of Rule 603 shall not extend to any change made under section (a)(2) of Rule 607. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade.
- (3) If a permit applicant requests it, the Board shall issue permits that contain terms and conditions (including all terms required under sections (a) and (c) of Rule 603 to determine compliance) allowing for the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally-enforceable emissions cap. Such a cap must be established in the permit independent of otherwise applicable requirements. The permit applicant shall include in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The Board shall not be required to include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall also require compliance with all applicable requirements.
 - (i) Under section (a)(3) of Rule 607, the written notification required shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.
 - (ii) The permit shield described in paragraph (d) of Rule 603 may extend to terms and conditions that allow such increases and decreases in emissions.

(b) Off-Permit Changes. The Board may allow changes that are not addressed or prohibited by the permit and/or State Law.

(1) A permitted facility may make changes without obtaining a permit revision if such changes are not addressed or prohibited by the permit, other than those described in paragraph (c) of Rule 607.

(i) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(ii) Sources must provide contemporaneous written notice to the Board and EPA of each such change, except for changes that qualify as insignificant under paragraph (c)(1) of Rule 602. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply because of the change.

(iii) The change shall not qualify for the shield under paragraph (d) of Rule 603.

(iv) The permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

(c) A permitted facility cannot make changes without a permit revision if such changes are modifications under any provision of Title I of the Act.

43. (a) Essroc may make changes under section 502(b)(10) of the Act without requiring a permit revision if such changes:

(1) are not modifications under any provision of Title I of the Act,

(2) do not exceed the allowable emissions under the permit,

(3) do not result in the emission of any pollutant not previously emitted,

(4) do not violate any applicable requirement or contravene federally enforceable terms and permit conditions such as monitoring (including test methods), recordkeeping, reporting and compliance certification requirements,

(5) are not changes under Title I of the Act to an emission limit, a work

practice or a voluntary emission cap.

- (b) Rule 203 of the RCAP is required for any construction or modification of an emission source, except if it is exempted under Rule 206 of the RCAP. For purposes of part II of the RCAP, a modification is defined as any physical change in, change in the method of operation or a change in type of fuel used of an existing stationary source, that would result in a net increase in that stationary source's potential to emit any air pollutant (subject to any standard), or which results in the emission of any pollutant (subject to an standard) not previously emitted. A physical change shall not include routine maintenance, repair and the replacement of any equipment having the same capacity, equal efficiency or greater environmental benefit to be used for the same purpose.
- (c) The written notification addressed in condition 37(a)(1)(i) refer to changes covered under condition 37(a)(1). Changes not covered will be processed under the requirements of Rule 203 of the RCAP.
- (d) Any emission trading as provided in condition 37(a)(2) above will not be authorized if the facility does not provide the reference to the PR-SIP provisions authorizing such emissions trading.
- (e) If Essroc requests so, the Board may allow the emission trading in the facility solely for the purpose of complying with a federally enforceable emissions cap. The application shall be based in replicable procedures and shall include permit terms that ensure the emission trades are quantifiable, replicable and enforceable.
- (f) Off- permit changes will not be exempt from complying with the requirements and procedures of Rule 203 of the RCAP, if applicable.

Section IV Potential Emissions

A. The emissions described on the following table represent the facility potential emissions at the moment of the permit application and will be used only for payment purposes. According to Resolution R-97-47-1, the emission calculations shall be based on Essroc's actual emissions, although calculations based on the facility permissible emissions will be accepted. If Essroc decides to perform the calculations based on permissible emissions, Essroc shall pay the same charge per ton as the facilities that decides to do the calculations based on actual emissions. Also, when Essroc applies for a modification, administrative change or minor modification to its Title V permit, the source will pay only those charges related with any emission increase (if any) per tonnage, based on the change and not based on the total fees paid previously according to Rule 610(a) of the RCAP.

POLLUTANTS	PERMISSIBLE EMISSIONS (TONS/YEAR)
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POLLUTANTS	PERMISSIBLE EMISSIONS (TONS/YEAR)
PM ₁₀	546.02
SO ₂	471.30
NO _x	1,439.00
CO	1,264.22
VOC	41.01
Lead	0.03
HCl	47.78
Benzene	5.46
Total HAP's	54.82

Section V Reporting Requirements

- A. As specified under Rule 112(B) of the RCAP, Essroc must submit a compliance certification, incorporating all requirements specified in this permit, on first of April of each year. Such certification must contain a certification by the responsible official of its truth, accuracy and completeness, as specified under Rule 602(c)(3) of the RCAP.

Section VI Specific Permit Conditions

A. Compliance with Rule 404 of the RCAP

1. Essroc shall use water or suitable chemicals for chemical stabilization and the control of dust in construction operations, quarrying operations, the grading of roads or the clearing of land.
2. Essroc shall apply asphalt, water, or suitable chemicals and use vegetation on dirty roads or roads under construction, materials, stockpiles, and other surfaces which can give rise to airborne dust.
3. Essroc shall cover, at all times when in motion, open bodied trucks transporting materials likely to give rise to airborne dusts.
4. Essroc shall pave roadways and maintain them in clean conditions.
5. Essroc shall remove promptly earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, by erosion by water, or by other means.

6. When air pollutants escape from a building or equipment and cause a nuisance or violate any regulations, the Board may order that the building or equipment in which processing, handling, and storage are done, be tightly closed and/or ventilated so that all emissions from the building or equipment are controlled to remove or destroy such air pollutants before being discharged to the open air. The implementation of this measure should not create occupational health hazards.
7. Every area, lot, or part of a piece of land intended for parking with a capacity greater than 900 square feet must be paved with concrete, asphalt, equivalent hard surface or chemical stabilization on all its access and internal roads where unpaved traffic adjoin paved roadways and parking areas.

B. Prevention of Significant Deterioration (PSD) Non applicability Conditions⁴

1. The maximum plant-wide⁵ cement production shall not exceed 850,000 tons/ 365 days.
2. Only Kiln No. 3 (EU501) shall be used at the facility to produce clinker that will be ground and it shall not exceed 726,117 tons of cement/ 365 days. (Kiln 1 and 2 were permanently decommissioned in 1991.)
3. The additional clinker needed to achieve the 850,000 tons/365 days of cement production shall be supplied from sources outside of the plant. No increase in clinker production from Kiln No. 3 (EU501) shall be allowed in order to meet this increased production.
4. Each of the emission units listed in the attached table of Appendix II PSD Non Applicability Restrictions shall be operated with the particulate control equipment specified in the same table of Appendix II. The particulate control equipment shall be operated and maintained following good engineering practices.
5. Each of the emissions units listed in the attached table of Appendix II PSD Non Applicability Restrictions shall not exceed the maximum hours of operation specified in the same table on a 365-day rolling average basis. Hours of operation per rolling 365-day period shall be calculated by the sum of operations during any one calendar day added to the sum of operations during the previous 364 calendar days. Essroc shall maintain a daily log where the daily hours of operation of each of the listed equipment under Cement Mills No. 2, No. 3, and Packaging Lines No. 1 and No. 2 shall be recorded. (The actual hours of operation for the units listed under Other Equipment are back calculated from final throughput numbers.)

⁴ August 13, 2002 PSD Non Applicability Revision.

⁵ For purposes of this section the terms “plant-wide” or “facility wide” refers only to all the equipment listed in the table of Appendix II titled PSD Non Applicability Restrictions.

6. All the listed equipment shall not exceed the maximum amount of throughput specified in the table on a 365-day rolling average basis. Maximum throughput per rolling 365-day period shall be calculated by the sum of operations during any one calendar day added to the sum of operations during the previous 364 calendar days. Essroc shall maintain a daily log where the daily throughput for each of the listed equipment shall be recorded.
7. In order to provide for “operational flexibility” in the use of a particular cement mill and/or packing circuit, Essroc is allowed to shift cement production from one cement mill circuit and/or packing circuit to another and exceed the unit specific limits required by conditions 5 and 6 above, if it complies with the following requirements:
 - a. Essroc will inform EQB and EPA in writing that Essroc has selected to implement condition 7 of this section. Thereafter, if Essroc chooses to return to implementing conditions 5 and 6, a second written notification will be required.
 - b. While Essroc will no longer be restricted to a unit specific maximum hours of operation and maximum production throughput listed in the table of Appendix II PSD Non Applicability Restrictions, summation of the operational circuits and other emission units identified as “Other Equipment” in the table of Appendix II shall not exceed 159.4 tons and 145.5 tons for TSP and PM₁₀, respectively per 365-day period on a rolling average basis calculated every day.
 - c. Essroc must keep a daily log of all actual hours of operation for each operational circuit as well as each emission units identified as Other Equipment listed in the table of Appendix II PSD Non Applicability Restrictions (even if the operational circuits and/or units are not operating on that particular day). Hours of operation for the units listed under Other Equipment are back calculated based on actual throughput on those units.
 - d. Essroc must calculate the plant-wide daily TSP and PM₁₀ emissions for each individual operational circuit and the emissions associated from the units in Other Equipment in the table of Appendix II PSD Non Applicability Restrictions using the emission factors derived from the May 18, 1998 PSD non-applicability request. To determine the TSP and PM₁₀ emissions based on a 365-day rolling average basis for each operational circuit and the units identified as Other Equipment, the plant-wide daily TSP and PM₁₀ emissions of a particular day must be added to the sum of emissions during the previous 364 calendar days.
 - e. Essroc shall notify EPA and EQB in writing, within 7 days of its occurrence, when actual emissions of TSP and/or PM₁₀ have exceeded 159.4 tons/365 days and 145.5 tons/365 days, respectively.

- f. As a “proactive” management tool to help Essroc take precautionary measures so that it will not exceed the 365-day TSP and PM₁₀ emission limits, Essroc must determine the maximum expected cement production (production forecast) for a given period based on the following:
- i. If actual annual cement production at this facility is less than 95% of the maximum allowable limit of 850,000 tons/365 days (i.e. 807,500 tons/365 days), calculated on a monthly basis, Essroc shall determine a 12-month cement production forecast, updated quarterly. This production forecast shall be used to calculate the expected facility-wide emissions (also as a 12-month emission projection, updated quarterly), for TSP and PM₁₀ to ensure that Essroc will not exceed the 365-day facility-wide limits for each respective pollutant. The production forecast must be in writing and must include the expected emissions of each unit for the following quarter as well as calculations reflecting the emission factors derived from the May 18, 1998 PSD applicability request and must demonstrate that the sum of all operations/circuits and other emission units identified as Other Equipment will not exceed the maximum TSP and PM₁₀ limits in the foreseeable future. Essroc shall maintain each production forecast record and the required emission calculations for a period of at least 5 years.
 - ii. If actual annual cement production at this facility is equal or greater than 95% of the maximum allowable limit of 850,000 tons/365 days (i.e. 807,500 tons/365 days), calculated on a 12-month rolling basis, Essroc shall determine a monthly cement production forecast. This production forecast shall be used to calculate the expected facility-wide emissions for TSP and PM₁₀ on a monthly basis to ensure that Essroc will not exceed the 365-day facility-wide limits for each respective pollutant before actual cement production starts for the next month. The production forecast must be in writing and must include the expected emissions of each unit for the following quarter as well as calculations reflecting the emission factors derived from the May 18, 1998 PSD applicability request and must demonstrate that the sum of all operations/circuits and other emission units identified as Other Equipment will not exceed the maximum TSP and PM₁₀ limits in the near future. Essroc shall maintain each production forecast record and the required emission calculations for a period of at least 5 years.
- g. In addition to making enforcement action under the Clean Air Act or the Puerto Rico Implementation Plan (PRSIP), EPA and/or EQB may revoke this condition 7at any time if it is determined that Essroc does not keep sufficient daily records to determine compliance with the 365-day rolling average limits of if the EPA or EQB, in their discretion, determine that this operational flexibility alternative lacks sufficient enforceability.

8. The daily logs and all calculations/ records required in this section shall be kept on site for a period of at least 5 years and shall be made available to EPA or EQB inspectors upon request.
9. In accordance with 40 CFR §52.21(r)(4) relaxation of any of the above conditions or restrictions may subject the source or modification to PSD as though construction had not yet commenced on the source or modification.⁶
10. Essroc shall keep the supplier purchase receipts showing the amount of clinker acquired.⁷
11. As determined by Rule 603(a)(4)(ii) of the RCAP, Essroc shall keep the records of all required monitoring data and support information for a period of 5 years from the date of the monitoring sample, measurement, report, or application.

C. Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR part 60, subpart OOO)

1. F107, F108, F224, EU202, EU203, EU205, EU206, EU207, EU208, EU210, EU211, EU212, EU213, EU214

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Opacity limit for transfer points on belt conveyors	Opacity	10	Percent	Method 22 Method 9	Monthly If visible emissions are observed during any Method 22 test.	With each opacity reading.	Sixty days after each reading.

- a. Essroc shall not exhibit greater than 10% opacity from the following transfer point on belt conveyors F107, F108, F202, F224, EU202, EU203, EU205, EU206, EU207, EU208, EU210, EU211, EU212, EU213, and EU214, according to 40 CFR §60.672(b).
- b. Essroc must conduct a monthly 1-minute visible emissions test of each affected source⁸ in accordance with Method 22 of Appendix A to part 60. The test must be conducted while the affected source is in operation.

⁶ Conditions from 1 to 9 are incorporated from the August 13, 2002 Revision when the PSD Non-Applicability Restrictions were revised.

⁷ PFE-26-0189-0051-I-II-C modification of December 22, 1998, which includes the PSD Non Applicability Restrictions.

⁸ Sources cited on section VI.C.1.

- c. If no visible emissions are observed in six consecutive monthly tests for any affected source, Essroc may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, Essroc must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- d. If no visible emissions are observed during the semi-annual test for any affected source, Essroc may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, Essroc must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- e. If visible emissions are observed during any Method 22 test, Essroc must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60. The Method 9 test must begin within one hour of any observation of visible emissions.
- f. The requirement to conduct Method 22 visible emissions monitoring under this section shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom.
- g. If any partially enclosed or unenclosed conveying system transfer point is located in a building, Essroc shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of paragraphs b. through e. of this section for each such conveying system transfer point located within the building, or for the building itself (according to paragraph h. of this section).
- h. If visible emissions from a building are monitored, the requirements of paragraphs b. through e. of this section apply to the monitoring of the building, and you must also do the following: Test visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.
- i. According to Rule 603(a)(5) of the RCAP, Essroc shall submit reports of any required monitoring every six months, or more frequently if required by the underlying applicable requirement or by the Board. All instances of deviations from permit requirement must be clearly identified in such reports. All required reports must be certified by a responsible official according to Rule 602(c)(3) of the RCAP.

2. F201 and EU 201

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Opacity Limit for crushers	Opacity	15	Percent	Method 22 Method 9	Monthly If visible emissions are observed during any Method 22 test.	With each opacity reading.	Sixty days after each reading.

- a. Essroc shall not exhibit greater than 15% opacity from crushers F201 and EU201, according to 40 CFR §60.672(c).
- b. Essroc must conduct a monthly 1-minute visible emissions test of each affected source⁹ in accordance with Method 22 of Appendix A to part 60. The test must be conducted while the affected source is in operation.
- c. If no visible emissions are observed in six consecutive monthly tests for any affected source, Essroc may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, Essroc must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- d. If no visible emissions are observed during the semi-annual test for any affected source, Essroc may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, Essroc must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- e. If visible emissions are observed during any Method 22 test, Essroc must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60. The Method 9 test must begin within one hour of any observation of visible emissions.
- f. The requirement to conduct Method 22 visible emissions monitoring under this section shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom.
- g. If any partially enclosed or unenclosed conveying system transfer point is located in a building, Essroc shall have the option to conduct a Method 22

⁹ Sources cited on section VI.C.2.

visible emissions monitoring test according to the requirements of paragraphs b. through e. of this section for each such conveying system transfer point located within the building, or for the building itself (according to paragraph h. of this section).

- h. If visible emissions from a building are monitored, the requirements of paragraphs b. through e. of this section apply to the monitoring of the building, and you must also do the following: Test visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.
- i. According to Rule 603(a)(5) of the RCAP, Essroc shall submit reports of any required monitoring every six months, or more frequently if required by the underlying applicable requirement or by the Board. All instances of deviations from permit requirement must be clearly identified in such reports. All required reports must be certified by a responsible official according to Rule 602(c)(3) of the RCAP.

3. F203, F205, F211, and EU209

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Visible Emissions Limit	Visible Emissions	N/A	Without visible emissions	Method 22	Monthly	With each opacity reading.	Sixty days after each reading.
				Method 9	If visible emissions are observed during any Method 22 test.		

- a. Essroc shall not cause the discharge of any visible fugitive emissions from units F203, F205, F211, and EU 209, according to 40 CFR §60.672(e)(1).
- b. Essroc must conduct a monthly 1-minute visible emissions test of each affected source¹⁰ in accordance with Method 22 of Appendix A of part 60. The test must be conducted while the affected source is in operation.
- c. If no visible emissions are observed in six consecutive monthly tests for any affected source, Essroc may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, Essroc must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

¹⁰ Sources cited on section VI.C.3.
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- d. If no visible emissions are observed during the semi-annual test for any affected source, Essroc may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, Essroc must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- e. If visible emissions are observed during any Method 22 test, Essroc must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A of part 60. The Method 9 test must begin within one hour of any observation of visible emissions.
- f. The requirement to conduct Method 22 visible emissions monitoring under this section shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom.
- g. If any partially enclosed or unenclosed conveying system transfer point is located in a building, Essroc shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of paragraphs b. through e. of this section for each such conveying system transfer point located within the building, or for the building itself (according to paragraph h. of this section).
- h. If visible emissions from a building are monitored, the requirements of paragraphs b. through e. of this section apply to the monitoring of the building, and you must also do the following: Test visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.
- i. According to Rule 603(a)(5) of the RCAP, Essroc shall submit reports of any required monitoring every six months, or more frequently if required by the underlying applicable requirement or by the Board. All instances of deviations from permit requirement must be clearly identified in such reports. All required reports must be certified by a responsible official according to Rule 602(c)(3) of the RCAP.

D. Standards of Performance for Coal Preparation Plants (40 CFR part 60, subpart Y)

- 1. EU401, EU402, EU403, EU404, EU405, EU406, F402, F403, and the Coal Mill Auxiliary Heater

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
PM Emission Limit	PM	0.031	gr/dscf	Method 5	Initial Performance test as required under 40 CFR §60.8.	Test results	Sixty days after test.
Opacity Limit	Opacity	20	Percent	Method 22 Method 9	Monthly If visible emissions are observed during any Method 22 test.	With each opacity reading.	Sixty days after each reading.
Temperature	Temperature	±3°	Fahrenheit	Temperature Record	Continuous	Record	Annual

- a. Units EU401, EU402, EU403, EU404, EU405, EU406, F402, F403, and Coal Mill Auxiliary Heater are subject to the Standards of Performance for Coal Preparation Plants of 40 CFR part 60, subpart Y.
- b. Essroc shall not cause the discharge of particulate matter from unit EU405 in excess of 0.031 gr/dscf according to 40 CFR §60.252 (a)(1).
- c. Essroc shall demonstrate compliance with the particulate matter emission limit through the results obtained in the initial performance test according to 40 CFR §60.8.
- d. Essroc shall not exceed the opacity limit of 20% according to 40 CFR §60.252(a)(2).
- e. Essroc must conduct a monthly 1-minute visible emissions test of each affected source¹¹ in accordance with Method 22 of Appendix A of part 60. The test must be conducted while the affected source is in operation.
- f. If no visible emissions are observed in six consecutive monthly tests for any affected source, Essroc may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, Essroc must resume testing of that

¹¹ Sources cited on section VI.D.1.

affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

- g. If no visible emissions are observed during the semi-annual test for any affected source, Essroc may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, Essroc must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
- h. If visible emissions are observed during any Method 22 test, Essroc must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A of part 60. The Method 9 test must begin within one hour of any observation of visible emissions.
- i. The requirement to conduct Method 22 visible emissions monitoring under this section shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom.
- j. If any partially enclosed or unenclosed conveying system transfer point is located in a building, Essroc shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of paragraphs e. through h. of this section for each such conveying system transfer point located within the building, or for the building itself (according to paragraph k. of this section).
- k. If visible emissions from a building are monitored, the requirements of paragraphs e. through h. of this section apply to the monitoring of the building, and you must also do the following: Test visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.
- l. Essroc shall install, calibrate, maintain, and continuously operate a monitoring device for the measurement of temperature of the gas stream at the exit of the thermal dryer on a continuous basis. [40 CFR §60.253(a)(1)]
- m. The temperature monitoring device shall be certified by the manufacturer to be accurate within $\pm 3^{\circ}$ Fahrenheit according to 40 CFR §60.253(a)(1).
- n. The temperature monitoring device shall be calibrated annually according to 40 CFR §60.253(b). Essroc shall maintain calibrations records for the temperature monitoring device. This record shall be maintained readily accessible at the facility for EQB revision.

- o. According to Rule 603(a)(5) of the RCAP, Essroc shall submit reports of any required monitoring every six months, or more frequently if required by the underlying applicable requirement or by the Board. All instances of deviations from permit requirement must be clearly identified in such reports. All required reports must be certified by a responsible official according to Rule 602(c)(3) of the RCAP.

E. Other operational limits

1. EU203, EU204

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Process limit	Amount of material processed	1,085,000	Tons per year	Record of material processed	Monthly	Record	Semiannual

- a. Essroc shall not exceed the raw material (calcareous rock) process limit of 1,085,000 tons per year for any consecutive 12 month period. The amount of raw material for any consecutive 12 month period shall be calculated by adding the monthly amount of raw material processed to the total raw material processed for the previous 11 months. [PFE-26-0189-0051-I-II-C]
- b. Essroc shall keep a 12-month rolling average monthly record of the amount (in tons) of raw material processed. This record shall be maintained readily accessible at the facility for EQB and EPA revision.
- c. According to Rule 603(a)(5) of the RCAP, Essroc shall submit reports of any required monitoring every six months, or more frequently if required by the underlying applicable requirement or by the Board. All instances of deviations from permit requirement must be clearly identified in such reports. All required reports must be certified by a responsible official according to Rule 602(c)(3) of the RCAP.

2. EU206, EU207, EU210, EU210, EU211, EU212, F203, F205, and F211

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Process limit	Amount of aggregates processed	1,119,382	Tons per year	Record of material processed	Monthly	Record	Semiannual

- a. Essroc shall not exceed the process limit of 1,119,382 tons per year for any consecutive 12 month period. The amount of raw material (calcareous rock) processed for any consecutive 12 month period shall be calculated by adding the monthly amount of raw material processed to the

total raw material processed for the previous 11 months. [PFE-26-1100-2116-I-C]

- b. Essroc shall keep a 12-month rolling average monthly record of the amount (in tons) of raw material processed. This record shall be maintained readily accessible at the facility for EQB and EPA revision.
- c. According to Rule 603(a)(5) of the RCAP, Essroc shall submit reports of any required monitoring every six months, or more frequently if required by the underlying applicable requirement or by the Board. All instances of deviations from permit requirement must be clearly identified in such reports. All required reports must be certified by a responsible official according to Rule 602(c)(3) of the RCAP.

3. EU302 (Auxiliary Air Heater)

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Sulfur limit	Sulfur Content	0.5	Percent by weight	Record of fuel supplier certificate	With each fuel receipt	Daily	Monthly
Fuel consumption limit	Diesel consumption	600,000	Gallons per year	Consumption record	Monthly	Record	Annual

- a. Essroc shall not burn diesel in unit EU302 with sulfur content in excess of 0.5% by weight for unit EU302. [PFE-26-0189-0054-I-II-C]
- b. Essroc shall keep a copy of the fuel supplier certification indicating the fuel sulfur content to demonstrate compliance with the requirement of keeping a daily record of the sulfur content in the diesel. Essroc shall obtain an analysis of the sulfur content with each receipt of fuel using Method ASTM 4294 or ASTM 2880-71.
- c. Unit EU302 shall not exceed the consumption limit of 600,000 gallons per year of diesel for any consecutive 12 month rolling period. The fuel consumption for any consecutive 12 month period shall be calculated by adding the monthly consumption to the total fuel consumption for the previous 11 months. [PFE-26-0189-0051-I-II-C]
- d. Essroc shall maintain a daily fuel consumption record for unit EU302. This record shall be maintained readily accessible at the facility for EQB and EPA revision.
- e. Essroc shall install, calibrate, and operate a flow meter for unit EU302 within the first 90 days of approval of this permit. Essroc shall calibrate

every six months the flow meter in accordance with the manufacturer's specifications and maintain the records of the periodic calibrations available for EQB review.

- f. As specified under Rule 603(a)(4)(ii) of the RCAP, Essroc shall keep all records of required monitoring data and supporting information for a period of 5 years from the date of the monitoring sample, measurement, report or application. This includes a record with the results of the fuel performance test, a record of monthly fuel consumption and sulfur content of consumed fuels and the results and methodology of flow meter calibrations for any combustion unit.
- g. Essroc shall submit to EQB, within the first 15 days of the month following the one being reported, a monthly report indicating the daily fuel consumption and the sulfur content by weight, for the fuel consumed. This report shall be addressed to the Chief of the Data Validation and Mathematical Modeling Division of the Area of Evaluation and Strategic Planning and shall be kept available at any time at the facility for EQB and EPA revision.

4. EU501 (Feed System to Kiln 3)¹²

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Sulfur limit	S	1.0 (carbon)	Percent by weight	Record of fuel supplier certificate	With each fuel receipt	Daily	Monthly
		0.5 (fuel oil and diesel)					
Fuel consumption	Carbon	90,000	Tons per year	Consumption record	Monthly	Record	Annual

¹² Emission unit EU501 is made up of two burners in the precalcination area and one main burner in the kiln with a total thermal capacity of 553 MMBtu/hr.

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
limit	Used Oil	18,851,691	Gallons per year				
	Diesel	40,000	Gallons per year				

- a. Essroc shall not burn or permit the use of fuels with a sulfur content exceeding 1.0% by weight for carbon and 0.5% by weight for used oil and diesel. [PFE-26-0189-0051-I-II-C]
- b. Essroc shall keep a copy of the fuel supplier certification indicating the fuel sulfur content to demonstrate compliance with the requirement of keeping a daily record of the sulfur content in the diesel. Essroc shall obtain an analysis of the sulfur content with each receipt of fuel using Method ASTM 4294 or ASTM 2880-71.
- c. Essroc shall not exceed the consumption limit of 40,000 gallons of diesel for the preheating of unit EU501 for any consecutive 12 month rolling period. The fuel consumption for any consecutive 12 month period shall be calculated by adding the monthly consumption to the total fuel consumption for the previous 11 months. [PFE-26-0189-0051-I-II-C].
- d. Essroc shall not exceed the consumption limit of 90,000 tons for unit EU501 for any consecutive 12 month rolling period. The carbon consumption for any consecutive 12 month period shall be calculated by adding the monthly consumption to the total carbon consumption for the previous 11 months. [PFE-26-0189-0051-I-II-C].
- e. Essroc shall not exceed the consumption limit of 18,851,691 gallons (69.657 tons/year) of used oil for unit EU501 for any consecutive 12 month rolling period. The fuel consumption for any consecutive 12 month period shall be calculated by adding the monthly consumption to the total fuel consumption for the previous 11 months. [PFE-26-0189-0051-I-II-C].
- f. The use of used oil as fuel is authorized only for unit EU501. Essroc shall not feed used oil to unit EU501 during periods of preheating, startup or shutdowns. [PFE-26-0189-0051-I-II-C]
- g. Unit EU501 shall be provided with a fuel flow meter to verify the used oil and diesel consumption. Essroc shall calibrate every six months the flow meters in accordance with the manufacturer's specifications and maintain the records of the periodic calibrations available for EQB review.

- h. Essroc shall keep a record of each switch from carbon to used oil or vice versa in the two burners of the precalcination area and the main burner in kiln EU501 (Kiln 3). The record shall include the following:
 - i. Date of the fuel switch,
 - ii. Time (hour) of startup, and
 - iii. Amount of fuel consumed.

This record shall be maintained readily accessible at the facility for EQB revision.

- i. Essroc shall submit to EQB, within the first 15 days of the month following the one being reported, a monthly report indicating the daily fuel consumption and the sulfur content by weight, for the fuel consumed in unit EU501. This report shall be addressed to the Chief of the Data Validation and Mathematical Modeling Division of the Area of Evaluation and Strategic Planning and shall be kept available at any time at the facility for EQB and EPA revision.
- j. Essroc shall keep readily accessible at the facility the used oil analysis certifying that the fuel is not classified as hazardous waste as defined in section 261.3 of 40 CFR.
- k. In the case that the used oil is classified as hazardous waste, Essroc shall comply with the applicable requirements in 40 CFR part 63, subpart EEE: National Emission Standards for Hazardous Atmospheric Pollutants for Hazardous Waste Combustors.
- l. The Board reserves its right to require additional tests or analysis in order to demonstrate compliance with the national air quality standards and determine the pollutants emissions to the atmosphere.
- m. As specified under Rule 603(a)(4)(ii) of the RCAP, Essroc shall keep all records of required monitoring data and supporting information for a period of 5 years from the date of the monitoring sample, measurement, report or application. This includes a record with the results of the fuel performance test, a record of monthly fuel consumption and sulfur content of consumed fuels and the results and methodology of flow meter calibrations for any combustion unit.
- n. According to Rule 603(a)(5) of the RCAP, Essroc shall submit reports of any required monitoring every six months, or more frequently if required by the underlying applicable requirement or by the Board. All instances of deviations from permit requirement must be clearly identified in such

reports. All required reports must be certified by a responsible official according to Rule 602(c)(3) of the RCAP.

Section VII - National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

A. Operation and Maintenance Requirements (40 CFR subpart A, section 63.6)

1. At all times, including periods of startup, shutdown, and malfunction¹³, Essroc must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that Essroc reduce emissions from the affected source to the greatest extent, which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require Essroc to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require Essroc to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to EQB and EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of section 63.6), review of operation and maintenance records, and inspection of the source. [40 CFR §63.6(e)(1)(i)]
2. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of section 63.6 of 40 CFR. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, Essroc must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices. [40 CFR §63.6(e)(1)(ii)]
3. Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.¹⁴ [40 CFR §63.6(e)(1)(iii)]

¹³ According to 40 CFR §63.2, a malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

¹⁴ According to 40 CFR §63.2, a relevant standard means an emission standard; an alternative emission standard; an alternative emission limitation; or an equivalent emission limitation established pursuant to section 112 of the Act that applies to the stationary source, the group of stationary sources, or the portion of a stationary source regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or

4. Startup, shutdown, and malfunction plan. Essroc must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. Essroc must develop this plan by the source's compliance date for that relevant standard. [40 CFR §63.6(e)(3)(i)]
5. During periods of startup, shutdown, and malfunction, Essroc must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of section 63.6. [40 CFR §63.6(e)(3)(ii)]
6. When actions taken by Essroc during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, Essroc must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist, or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, Essroc must keep records of these events as specified in section 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, Essroc shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in Sec. 63.10(d)(5). [40 CFR §63.6(e)(3)(iii)]
7. If an action taken by Essroc during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and Essroc exceeds any applicable emission limitation in the relevant emission standard, then Essroc must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with section 63.10(d)(5) (unless Essroc makes alternative reporting arrangements, in advance, with EPA and EQB. [40 CFR §63.6(e)(3)(iv)]

operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that EPA (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of part 63 and all applicable appendices of part 63 or of other parts of chapter I that are referenced in that standard.

8. Essroc must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by EQB or EPA. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of section 63.6, Essroc must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by EQB or EPA for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of part 63, Essroc must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by EQB or EPA. EQB or EPA may at any time request in writing that Essroc submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of Essroc. Upon receipt of such a request, Essroc must promptly submit a copy of the requested plan (or a portion thereof) to EQB and EPA. EQB or EPA must request Essroc submit a particular startup, shutdown, or malfunction plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. Essroc may elect to submit the required copy of any startup, shutdown, and malfunction plan to EQB and EPA in an electronic format. If Essroc claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission. [40 CFR §63.6(e)(3)(v)]
9. To satisfy the requirements of section 63.6 to develop a startup, shutdown, and malfunction plan, Essroc may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of section 63.6 and are made available for inspection when requested by EQB or EPA. [40 CFR §63.6(e)(3)(vi)]
10. According to 40 CFR §63.6(e)(3)(vii), and based on the results of a determination made under paragraph (e)(1)(i) of section 63.6, EQB or EPA may require that Essroc make changes to the startup, shutdown, and malfunction plan for that source. EQB or EPA may require reasonable revisions to a startup, shutdown, and malfunction plan, if EQB or EPA finds that the plan:
 - a. Does not address a startup, shutdown, or malfunction event that has occurred;
 - b. Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown,

or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of section 63.6;

- c. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
 - d. Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in Sec. 63.2.
11. Essroc may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of part 63 or to reflect changes in equipment or procedures at the affected source. Unless EQB or EPA provides otherwise, Essroc may make such revisions to the startup, shutdown, and malfunction plan without prior approval by EQB or EPA. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the Essroc developed the plan, Essroc must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that Essroc makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under part 63, the revised plan shall not take effect until after Essroc has provided a written notice describing the revision to EQB and EPA. [40 CFR §63.6(e)(3)(viii)]
12. This title V permit require that Essroc adopt a startup, shutdown, and malfunction plan which conforms to the provisions of part 63, and that Essroc operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by part 63 shall not be deemed to constitute permit revisions under part 70 or part 71 of chapter I of 40 CFR. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act. [40 CFR, §63.6(e)(3)(ix)]
13. **Compliance with nonopacity emission standards:**
- a) Applicability. The non-opacity emission standards set forth in 40 CFR part 63 shall apply at all times except during periods of startup, shutdown, and

malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in 40 CFR part 63, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements. [40 CFR §63.6(f)(1)]

b) Methods for determining compliance:

- 1) The Administrator¹⁵ will determine compliance with nonopacity emission standards in 40 CFR part 63 based on the results of performance tests conducted according to the procedures in §63.7, unless otherwise specified in an applicable subpart of 40 CFR part 63. [40 CFR §63.6(f)(1)(i)]
- 2) The Administrator will determine compliance with nonopacity emission standards in 40 CFR part 63 by evaluation of Essroc's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in §63.6(e), and applicable subparts of 40 CFR part 63. [40 CFR §63.6(f)(2)(ii)]
- 3) According to 40 CFR §63.6(f)(2)(iii), if an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if the requirements from (A) to (D) of 40 CFR §63.6(f)(2)(iii) are met.
- 4) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in 40 CFR part 63 by review of records, inspection of the source, and other procedures specified in applicable subparts of 40 CFR part 63. [40 CFR §63.6(f)(2)(iv)]
- 5) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in 40 CFR part 63 by evaluation of Essroc's conformance with operation and maintenance requirements, as specified in paragraph (e) of section 63.6 and applicable subparts of 40 CFR part 63. [40 CFR §63.6(f)(2)(v)]
- 6) Finding of compliance. The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of §63.6, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results,

¹⁵The Administrator is EQB and/or EPA.
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monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of section 63.6. [40 CFR §63.6(f)(3)]

14. **Compliance with opacity and visible emission standards:**

- a) **Applicability.** The opacity and visible emission standards set forth in 40 CFR part 63 must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in 40 CFR part 63, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements. [40 CFR §63.6(h)(1)]
- b) **Methods for determining compliance.**
 - 1) The Administrator will determine compliance with opacity and visible emission standards in 40 CFR part 63 based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in 40 CFR part 63, compliance with opacity emission standards in 40 CFR part 63 shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in 40 CFR part 63 shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of 40 CFR or the method specified in paragraph (h)(7)(ii) of section 63.6. Whenever a visible emission test method is not specified, compliance with visible emission standards in 40 CFR part 63 shall be determined by conducting observations in accordance with Test Method 22 in appendix A of 40 CFR part 60. [40 CFR §63.6(h)(2)(i)]
 - 2) Reserved [40 CFR §63.6(h)(2)(ii)]
 - 3) According to 40 CFR §63.6(h)(2)(iii), if an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if the requirements from (A) to (D) of 40 CFR §63.6(h)(2)(iii) are met.
 - 4) Reserved [40 CFR §63(h)(3)]
- c) **Notification of opacity or visible emission observations.** Essroc shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with 40 CFR §63.9(f), if such

observations are required for the source by a relevant standard. [40 CFR §63(h)(4)]

- d) Conduct of opacity or visible emission observations. According to 40 CFR §63.(h)(5), when a relevant standard under 40 CFR part 63 includes an opacity or visible emission standard, Essroc shall comply with the requirements on paragraphs (i) through (v) in 40 CFR §63.6(h)(5).
- e) Availability of records. Essroc shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. [40 CFR §63.6(h)(6)]
- f) Use of a continuous opacity monitoring system:
 - 1) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under 40 CFR §63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of 40 CFR §63.10(e)(4). [40 CFR §63.6(h)(7)(i)]
 - 2) Whenever an opacity emission test method has not been specified in an applicable subpart, or Essroc is required to conduct Test Method 9 observations (see appendix A of 40 CFR part 60), Essroc may submit, for compliance purposes, COMS data results produced during any performance test required under 40 CFR §63.7 in lieu of Method 9 data. If Essroc elects to submit COMS data for compliance with the opacity emission standard, Essroc shall notify the Administrator of that decision, in writing, simultaneously with the notification under 40 CFR §63.7(b) of the date the performance test is scheduled to begin. Once Essroc has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under 40 CFR §63.7, unless Essroc notifies the Administrator in writing to the contrary not later than with the notification under 40 CFR §63.7(b) of the date the subsequent performance test is scheduled to begin. [40 CFR §63.6(h)(7)(ii)]
 - 3) For the purposes of determining compliance with the opacity emission standard during a performance test required under 40 CFR §63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test. [40 CFR §63.6(h)(7)(iii)]
 - 4) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has

complied with the performance evaluation requirements of 40 CFR §63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in 40 CFR § 3.8(c) and 40 CFR §63.8(d), and that the resulting data have not been altered in any way. [40 CFR §63.6(h)(7)(iv)]

5) Except as provided in paragraph (h)(7)(ii) of section 63.6, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that Essroc proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in 40 CFR §63.8(c), and met Performance Specification 1 in appendix B of 40 CFR part 60, and that the resulting data have not been altered in any way. [40 CFR §63.6(h)(7)(v)]

g) Finding of compliance. According to 40 CFR §63.6(h)(8), the Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by 40 CFR §63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of section 63.6, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

h) Adjustment to an opacity emission standard.

1) If the Administrator finds under paragraph (h)(8) of section 63.6 that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under 40 CFR §63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, Essroc may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies Essroc of the appropriate adjustment, the relevant opacity emission standard remains applicable. [40 CFR §63.6(h)(9)(i)]

2) According to 40 CFR §63.6(h)(9)(ii), the Administrator may grant such a petition upon a demonstration by Essroc that complies with the requirements on paragraphs (A) through (C) of 40 CFR §63.6(h)(9)(ii).

3) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is

meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register. [40 CFR §63.6(h)(9)(iii)]

- 4) After the Administrator promulgates an adjusted opacity emission standard for an affected source, Essroc shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests. [40 CFR §63.6(h)(9)(iv)]

B. Specific Conditions

1. Emission Limits for the in-line kiln EU501/ raw mill EU301

- a. According with section 63.1343(b), Essroc shall not cause to be discharged into the atmosphere from the in-line kiln EU501/raw mills EU301, any gases which:
 - i. Contain particulate matter (PM) in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with the in-line kiln EU501/ raw mill EU301, the combined particulate matter emissions from the in-line kiln/raw mill and the alkali bypass are subject to this emission limit,
 - ii. Exhibit opacity greater than 20%, and
 - iii. Contain D/F in excess of 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ¹⁶) corrected to 7% oxygen; or 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) corrected to 7% oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 °C (400 °F) or less.

2. Operational Limits for the in-line kiln EU501/ raw mill EU301

- a. If Essroc is subjected to a D/F emission limitation under section 63.1343(b)(3) or condition B.1.a.iii. of this section, Essroc must operate the kiln EU501 such that the temperature of the gas at the inlet to the kiln EU501 particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in section 63.1344(b).

¹⁶ TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, *Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and dibenzofurans*.

- b. The owner or operator of an in-line kiln/raw mill subject to a D/F emission limitation under section 63.1343(b)(3) or condition B.1.a.iii. of this section must operate the in-line kiln EU501/ raw mill EU301, such that:
 - i. When the raw mill EU301 of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln EU501/ raw mill EU301 exhaust, specified in section 63.1344(b) and established during the performance test when the raw mill was operating is not exceeded.
 - ii. When the raw mill EU301 of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln EU501/ raw mill EU301 exhaust, specified in section 63.1344(b) and established during the performance test when the raw mill was not operating is not exceeded.
 - iii. If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass, specified in section 63.1344(b) and established during the performance test when the raw mill EU301 was operating, is not exceeded.
 - iv. The temperature limit is determined in accordance with section 63.1349(b)(3)(iv).

- 3. Standards for Clinker Cooler EU502
 - a. According to section 63.1345(a), Essroc shall not cause to be discharged into the atmosphere from the clinker cooler any gases which:
 - i. Contain particulate matter in excess of 0.050 kg per Mg (0.10 lb per ton) of feed (dry basis) to the kiln, and
 - ii. Exhibit opacity greater than 10%.

 - b. Essroc shall comply with the emission limit (20% opacity) applicable to the kiln EU501 if the clinker cooler EU502 emissions are routed through kiln EU501 as part of the manufacturing process. Essroc shall comply with the more restrictive limit (10% opacity) if the emissions of kiln EU501 are combined with clinker cooler EU502 emissions prior to discharge to the atmosphere.

- 4. Standards for raw and finish mill EU709 and EU715.
 - a. According to section 63.1347, Essroc shall not cause to be discharged from the mill sweep or air separator air pollution control devices of the

raw¹⁷ or finish mill EU709 and EU715 any gases which exhibit opacity in excess of 10% percent.

5. Standards for other affected sources (new or existing raw material, clinker, or finished product storage bin, conveying system transfer point, bagging system, and bulk loading or unloading system and each existing raw material dryer) F221, F222, EU302, EU304, EU305, EU306, EU307, EU308, EU309, EU601, EU602, EU603, EU604, EU605, EU606, EU607, EU608, EU609, EU610, EU611, EU612, EU613, F601, F603, F604, EU701, EU702, EU703, EU704, EU705, EU706, F701, F702, F703, EU707, EU708, EU710, EU711, EU712, EU713, EU714, EU716, EU801, EU802, EU803, EU804, EU805, E806, EU807, EU808, EU810, EU811, EU812 and EU813.
 - a. According to section 63.1348, Essroc shall not cause to be discharged any gases which exhibit opacity in excess of 10% percent from the new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system; and each existing raw material dryer.
 - b. Essroc shall comply with the emission limit (20% opacity) applicable to the kiln EU501 if the emissions of the auxiliary air heater EU302 are routed through kiln EU501 as part of the manufacturing process. Essroc shall comply with the more restrictive limit (10% opacity) if the emissions of kiln EU501 are simply combined with the emissions of the auxiliary air heater EU302 prior to discharge to the atmosphere.

C. Performance Test Requirements

1. Essroc shall demonstrate initial compliance with the emission limits of section 63.1343 and sections 63.1345 through 63.1348 using the test methods and procedures in section 63.1349(b) and section 63.7, according to section 63.1349(a).
2. Essroc shall submit to EQB and EPA a detailed test protocol at least 60 days prior to the start of the test.
3. Performance test results shall be documented in complete test reports that contain the information required in section 63.1349 paragraphs (a)(1) through (a)(10).
4. According to section 63.1349(c), performance tests required under section 63.1349(b)(1) and (b)(2) shall be repeated every five years, except that the owner or operator of a kiln, in-line kiln/raw mill or clinker cooler is not required to repeat the initial performance test of opacity for these sources as provided in section 63.1349(e).

¹⁷ This mill is not part of the in-line kiln/raw mill. See the definition of raw mill in section 63.1341.
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5. The performance tests required under section 63.1349(b)(3) shall be repeated every 30 months, according to section 63.1349(d).
6. According to section 63.1349(e)(i), if Essroc plans to undertake a change in operations that may adversely affect compliance with an applicable D/F standard under this subpart, Essroc must conduct a performance test and establish new temperature limit(s) as specified in section 63.1349(b)(3).
7. If Essroc plans to undertake a change in operations that may adversely affect compliance with an applicable PM standard under §63.1343, Essroc must conduct a performance test as specified in section 63.1349(b)(1).
8. According to section 63.1349(e)(3), Essroc may operate under the planned operational change conditions for a period not to exceed 360 hours in preparation for and while conducting a performance test required in section 63.1319(e)(1).
9. Essroc shall submit temperature and other monitoring data that are recorded during the pretest operations. Also Essroc shall comply with conditions established in paragraphs (e)(3)(i) through (iv) of section 63.1349.

D. Monitoring Requirements¹⁸

1. Essroc shall prepare for each affected source a written operations and maintenance plan, according to section 63.1350(a). The plan is part of the application of this Title V permit. The plan shall include the information required in section 63.1350(a)(1) through (a)(4) as follows:
 - a. The procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of sections 63.1343 through 63.1348.
 - b. Corrective actions to be taken when required by section 63.1350(e).
 - c. The procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year.
 - d. The procedures to be used to periodically monitor affected sources subject to opacity standards under sections 63.1346 and 63.1348. Such procedures must include the provisions in section 63.1350(a)(4)(i) through (a)(4)(iv).

¹⁸Table 1 from section 63.1350 from 40 CFR provides a summary of the monitoring requirements.

- e. The requirements of applicability of Method 22 for the partially and totally enclosed conveying system transfer points shall be determined in accordance with paragraphs (a)(4)(v) through (vii) of section 63.1350.
2. According to section 63.1350(b), failure to comply with any provision of the operations and maintenance plan developed as provided with section 63.1350(a) and condition D.1. shall be a violation of the standard.
3. According to section 63.1350(c), Essroc shall monitor opacity at each point where emissions are vented from the kiln EU501/ raw mill EU301 including alkali bypasses (if applicable) as provided with section 63.1350(c)(1) through (c)(3) as follows:
 - a. Essroc shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by general provisions of the 40 CFR part 63, subpart A and according to PS-1 of appendix B of the 40 CFR part 60.
 - b. Essroc may monitor opacity in accordance with section 63.1350(c)(2)(i) through (ii) in lieu of installing the continuous opacity monitoring system required by section 63.1350(c)(1), if using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks. Essroc must monitor opacity in accordance with section 63.1350(c)(2)(i) through (ii) as follows, if the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of appendix B of 40 CFR part 60 is not feasible:
 - i. Perform daily visual opacity observations of each stack in accordance with the procedures of Method 9 of appendix A of part 60 of this chapter. The Method 9 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 9 test shall be at least 30 minutes each day.
 - ii. Use the Method 9 procedures to monitor and record the average opacity for each six-minute period during the test.
 - c. To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 20%. If the average opacity for any 6-minute block period exceeds 20%, this shall constitute a violation of the standard.
4. According to section 63.1350(d), Essroc shall monitor opacity at each point where emissions are vented from the clinker cooler EU502 as required in section 63.1350(d)(1) through (d)(3).

5. According to section 63.1350(e), Essroc shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs of the raw and finish mill EU709, EU710, EU715 and EU716, in accordance with the procedures of Method 22 of appendix A to part 60 of 40 CFR. The Method 22 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, Essroc must:
 - a. Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with section 63.1350(a)(1) and (a)(2); and condition D.1 of this section; and
 - b. Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow-up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow-up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a visual opacity test of each stack from which emissions were observed during the follow up Method 22 test in accordance with Method 9 of appendix A to part 60 of 40 CFR. The duration of the Method 9 test shall be 30 minutes.
6. Essroc shall monitor D/F emissions in accordance with section 63.1350(f)(1) through (f)(6) as follows:
 - a. Shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the in-line kiln EU501 /raw mill EU301 and alkali bypass, if applicable, at the inlet to, or upstream of the PM control devices.
 - i. The recorder response range must include zero and 1.5 times either of the average temperatures established according to the requirements in section 63.1349(b)(3)(iv).
 - ii. The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by EPA.
 - b. Essroc shall monitor and continuously record the temperature of the exhaust gases from the in-line kiln EU501 /raw mill EU301 and alkali bypass, if applicable, at the inlet to the PMCD.
 - c. Essroc shall calculate the three-hour rolling average temperature as the average of 180 successive one-minute average temperatures.

- d. Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.
 - e. When the operating status of the raw mill EU301 of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.
 - f. The calibration of all thermocouples and other temperature sensors shall be verified at least once every 3 months.
- 7. The owner or operator of any kiln or in-line kiln/raw mill subject to a D/F emission limit shall conduct an inspection of the components of the combustion system of each in-line kiln EU501/ raw mill EU301 at least once per year, according to section 63.1350(i).
 - 8. According to section 63.1350(j), the owner or operator of an affected source subject to a limitation on opacity under section 63.1346 or section 63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with section 63.1350(a) or condition D.1. of this section.
 - 9. The owner or operator of an affected source subject to a particulate matter standard under section 63.1343 shall install, calibrate, maintain, and operate a particulate matter continuous emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere, as provided in section 63.1350(k). All requirements relating to installation, calibration, maintenance, operation or performance of the PM CEMS and implementation of the PM CEMS requirement are deferred pending further rulemaking.
 - 10. Essroc may submit an application to EPA for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of subpart LLL, subject to the provisions in section 63.1350(l)(1) through (l)(6).
 - 11. Essroc shall comply with section 63.1350(m) paragraphs (1) through (9), if a bag leak detection system (BLDS) is used in lieu of conducting the visual emissions testing required in section 63.1350(e).

E. Notification Requirements

- 1. Essroc shall comply with all notification requirements in section 63.9, according to section 63.1353. Essroc shall comply with these requirements as follows:

- a. Initial notifications as required by section 63.9(b) through (d).
- b. Notification of performance tests, as required by section 63.7 and 63.9(e).
- c. Notification of opacity and visible emission observations required by section 63.1349 in accordance with sections 63.6(h)(5) and 63.9(f).
- d. Notification, as required by section 63.9(g), of the date that the continuous emission monitor performance evaluation required by section 63.8(e) is scheduled to begin.
- e. Notification of compliance status, as required by section 63.9(h).

F. Reporting Requirements (§63.1354)

1. Essroc source shall comply with the reporting requirements specified in section 63.10 of the general provisions of this part 63, subpart A as follows:
 - a. Essroc shall report the results of performance tests as part of the notification of compliance status as required by section 63.10(d)(2).
 - b. Essroc shall report the opacity results from tests required by section 63.1349, as required by section 63.10(d)(3).
 - c. Essroc is required to submit progress reports as a condition of receiving an extension of compliance under section 63.6(i) shall submit such reports by the dates specified in the written extension of compliance, as required by section 63.10(d)(4).
 - d. As required by section 63.10(d)(5), if actions taken by Essroc during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in section 63.6(e)(3), Essroc shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports.
 - e. Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, Essroc shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following

the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

- f. As required by section 63.10(e)(2), Essroc submit a written report of the results of the performance evaluation for the continuous monitoring system required by section 63.8(e). Essroc shall submit the report simultaneously with the results of the performance tests.
- g. As required by section 63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under section 63.7 and described in section 63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under section 63.8(e).
- h. As required by section 63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emission and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.
- i. Essroc shall submit a summary report semiannually, which contains the information specified in section 63.10(e)(3)(vi). In addition, the summary report shall include:
 - i. All exceedances of maximum control device inlet gas temperature limits specified in section 63.1344(a) and (b);
 - ii. All failures to calibrate thermocouples and other temperature sensors as required under section 63.1350(f)(7);
 - iii. The results of any combustion system component inspections conducted within the reporting period as required under section 63.1350(i); and iv.
 - iv. All failures to comply with any provision of the operation and maintenance plan developed in accordance with section 63.1350(a).
- j. Essroc shall submit an excess emissions and continuous monitoring system performance report along with the summary report if the total continuous monitoring system downtime for any CEM or any continuous monitoring system for the reporting period is 10% or greater of the total operating time for the reporting period.

G. Recordkeeping requirements (§63.1355)

1. Essroc shall maintain files of all information (including all reports and notifications) required by section 63.1355 recorded in a form suitable and readily available for inspection and review as required by section 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
2. Essroc shall maintain records for each affected source as required by section 63.10(b)(2) and (b)(3); and the following information:
 - a. All documentation supporting initial notifications and notifications of compliance status under section 63.9;
 - b. All records of applicability determination, including supporting analyses; and; and
 - c. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the owner or operator has been granted a waiver under section 63.8(f)(6).
3. The owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by section 63.10(c).

H. Exemption from new source performance standards (§63.1356)

1. According to section 63.1356(a), any affected source subject to the provisions of this subpart is exempt from any otherwise applicable new source performance standard contained in subpart F or subpart OOO of 40 CFR part 60.
2. According to section 63.1356(b), the requirements of subpart Y of 40 CFR part 60, "Standards of Performance for Coal Preparation Plants," do not apply to conveying system transfer points used to convey coal from the mill to the kiln that are associated with coal preparation at a portland cement plant that is a major source.

Section VII - Insignificant Emission Units

The following activities will be considered insignificant as long as Essroc complies with the descriptions indicated below.

Emission Unit ID	Capacity	Description (Basis for exemption)
Tank II – Used Oil	6,000 gal	Appendix B(3)(ii)(N) of the RCCA- Tanks with storage capacity of less than 10,000 gallons.
Tank VII – Diesel No. 2 fuel oil	6,000 gal	
Tank XI –Low sulfur Diesel	8,000 gal	
Tank XII – High sulfur Diesel	8,000 gal	
Tank XIII - Gasoline	2,500 gal	
Tank A – Used Oil	1,000 gal	
Tank A1 – Gasoline	2,000 gal	
Tank A2 – Diesel	7,500 gal	
Tank A3 – Diesel	6,000 gal	
Tank A4 – #40 Oil	500 gal	
Tank A5- #40 Oil	500 gal	
Tank XVI – Diesel (Roller Mill)	5,000 gal	
Tank XVII – Diesel (Roller Mill)	5,000 gal	
Emergency gas motor for the Kiln	***	Appendix B(3)(vi) of the RCAP. Internal combustion engines having a capacity of less than 50 hp and an operation rate equal to or less than 500 hrs/yr.
Grinding Aid	***	Appendix B(3)(ii)(N) of the RCAP
Electric Generator	670 hp	Appendix B(3)(ii)(O) of the RCAP. Emergency Electric Generators with an operation rate equal or less than 500 hrs/yr.
Electric Generator	1072 hp	

Section VIII - Permit Shield

A. As specified under Rule 603(D) of the RCAP, compliance with the conditions of the permit shall be deemed compliance with any applicable requirement as of the date of permit issuance, but only if such applicable requirement is included and specifically identified in the permit. Moreover, Essroc shall be deemed in compliance with any other requirement specifically identified in the permit as **Non Applicable**.

(1) Non Applicable Requirements

Non applicable requirements		
State	Federal	Reason
	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) (40 CFR Part 60 Subpart Kb)	See Section VIII, Part (2) of this Permit
	National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Combustion Chambers (40 CFR Part 63 Subpart EEE)	See Section VIII, Part (2) of this Permit

(2) Reasons for Non Applicability

Coding for Non Applicability	
Code	Reason
40 CRF Part 60 Subpart Kb	It is not applicable for vessels with a capacity lower than 40 m ³ .
40 CFR Part 63 Subpart EEE	It is not applicable to cement kilns that do not burn hazardous wastes.

Section IX - Permit Approval

By virtue of the authority conferred upon the Environmental Quality Board by the Public Policy Environmental Act, Law No. 416, September 22, 2004, as amended, and after verifying the administrative record and compliance with the Uniform Administrative Procedure Act, Law No. 170, August 12, 1988, as amended, the Clean Air Act, the Public Policy Environmental Act and the Regulation for the Control of Atmospheric Pollution, the Environmental Quality Board approves this permit subject to all the terms and conditions herein established.

In San Juan, Puerto Rico, **December 22, 2008.**

ENVIRONMENTAL QUALITY BOARD

/s/
Eng. Noelia Rosa Jaime
Vice-president

/s/
Wanda E. García Hernández
Alternate Member

/s/
Esq. Javier J. Rúa
President

APPENDIXES

Appendix I - Definitions and Abbreviations

A. Definitions:

1. Act – Clean Air Act, as amended, 42 U.S. 7401, et seq.
2. Responsible Official- see definition of responsible official, as established in the EQB Regulation for the Control of Atmospheric Pollution, (1995).
3. Regulations – Regulations for the Control of Atmospheric Pollution of the Environmental Quality Board.
4. Permittee – person or establishment to whom EQB has issued an operating permit for an emission source covered by Title V.
5. Title V – Title V of the Federal Clean Air Act (42 U.S.C. 7661).
6. Working Days – The days officially established by the Commonwealth of Puerto Rico.

B. Abbreviations

Btu	British thermal unit
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EPA	Environmental Protection Agency
EQB	Environmental Quality Board
HAP	Hazardous Atmospheric Pollutants
MACT	Maximum Available Control Technology
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen oxides
NSPS	New Source Performance Standards

PM ₁₀	Particulate matter with a size less than or equal to 10 micrometers in aerodynamic mass median diameter
PSD	Prevention of Significant Deterioration
RCAP	Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board
SIC	Standard Industrial Classification
SO ₂	Sulfur dioxide
TSP	Total Suspended Particulate
VOC	Volatile Organic Compounds

C. Notification Addresses

Compliance Notifications and Permit Modifications

Environmental Quality Board
 Air Quality Area
 P.O. Box 11488
 Santurce, PR 00910

**Table Appendix II – PSD Non-Applicability Restrictions
850,000 tons/year Cement Production**

Source No.	EU Description	Emisión Point No.	Control Device No.	Required Control Device	Max. Annual Throughput (tons/year)*	Maximum # of hours (hr/yr)*	Max. TSP Emissions (tons/year) *	Max. PM ₁₀ Emissions (tons/year) *
Cement Mill No. 2 Operational Circuit								
EU701	Clinker Weigh Feeder 1 or 2 (FM2)	EP701	CD701	Dust collector	226,950	6,375	0.929	0.929
EU702	Gypsum Weigh Feeder FM2	EP701	CD701	Dust collector	15,300	6,375	0.929	0.929
EU703	Conveyor I	EP701	CD701	Dust collector	242,250	6,375	0.929	0.929
EU704	Gypsum Conveyor (FM2)	EP701	CD701	Dust collector	15,300	6,375	0.929	0.929
EU705	Conveyor II	EP701	CD701	Dust collector	242,250	6,375	0.929	0.929
EU706	Conveyor II Transfer Tower	EP702	CD702	Dust collector	242,250	6,375	0.328	0.328
EU707	Conveyor III FM2	EP702 EP704	CD702 CD704	Dust collector	242,250	6,375	8.706	8.706
EU708	Clinker B Transfer Conveyor	-	-	Dust collector	12,750	1,900	0.163	0.163
EU709	Finish Mill 2	EP704	CD704	Dust collector	255,000	6,375	8.379	8.379
EU710	Mill 2 Conveying and	EP704	CD704	Dust	255,000	6,375	8.379	8.379

Source No.	EU Description	Emisión Point No.	Control Device No.	Required Control Device	Max. Annual Throughput (tons/year)*	Maximum # of hours (hr/yr)*	Max. TSP Emissions (tons/year)*	Max. PM ₁₀ Emissions (tons/year)*
	Separator			collector				
F701	Clinker B Stockpile	-	-	Fugitive	12,750	8,760	1.092	0.535
F702	Clinker B Unloading	-	-	Fugitive	12,750	8,760	0.206	0.098
F703	Clinker B Chain Feeder	-	-	Fugitive	12,750	8,760	0.206	0.098
						Total:	32.104	31.331
Cement Mill No. 3 Operational Circuit								
EU711	Gypsum Weigh Feeder FM3	EP705	CD705	Dust collector	35,700	8,150	1.484	1.484
EU712	Gypsum Conveyor FM3	EP705	CD705	Dust collector	35,700	8,150	1.484	1.484
EU713	Clinker Weigh Feeder 1 or 2 (FM3)	EP705	CD705	Dust collector	559,300	8,150	1.484	1.484
EU714	Conveyor II (FM3)	EP705	CD705	Dust collector	595,000	8,150	1.484	1.484
EU715	Finish Mill 3	EP706	CD706	Dust collector	595,000	8,150	15.619	15.619
EU716	Mill 3 Conveying and Separator	EP707	CD707	Dust collector	595,000	8,150	12.574	12.574
						Total:	34.129	34.129

Source No.	EU Description	Emisión Point No.	Control Device No.	Required Control Device	Max. Annual Throughput (tons/year)*	Maximum # of hours (hr/yr)*	Max. TSP Emissions (tons/year)*	Max. PM ₁₀ Emissions (tons/year)*
Packing Line No. 1 Operational Circuit								
EU805	FLS Cement Packing Circuit	EP804	CD804	Dust collector	170,000	2,429	2.498	2.498
						Total:	2.498	2.498
Packing Line No. 2 Operational Circuit								
EU806	Screw Conveyor	EP805	CD805	Dust collector	170,000	2,429	1.249	1.249
EU807	Bucket Elevator	EP805	CD805	Dust collector	170,000	2,429	1.249	1.249
EU808	Car Ventomatic Cement Packing Circuit	EP806	CD806	Dust collector	170,000	2,429	2.498	2.498
						Total:	4.996	4.996
Other Equipment^a								
EU601	Conveyor L01	EP601 EP602 EP603	CD601 CD602 CD603	Dust collector	682,550	7,526	3.981	3.981
EU602	Conveyor L02	EP603	CD603	Dust collector	682,550	7,526	2.885	2.885
EU603	Clinker Conveyor I (K377)	EP603	CD603	Dust collector	433,628	8,279	3.173	3.173
EU604	Clinker Conveyor II (K384)	EP603	CD603	Dust collector	433,628	8,279	3.173	3.173
EU605	Clinker Elevator I (K378)	EP603	CD603	Dust	399,500	8,279	6.165	6.165

Source No.	EU Description	Emisión Point No.	Control Device No.	Required Control Device	Max. Annual Throughput (tons/year)*	Maximum # of hours (hr/yr)*	Max. TSP Emissions (tons/year)*	Max. PM ₁₀ Emissions (tons/year)*
		EP605	CD605	collector				
EU606	Clinker Elevador II (K379)	EP603 EP605	CD603 CD605	Dust collector	399,500	8,279	3.173	3.173
EU607	Clinker Unloading	EP604	CD604	Dust collector	184,705	8,000	5.143	5.143
EU608	Maginal Conveyor (K393)	EP604	CD603 CD604	Dust collector	184,705	8,000	5.143	5.143
EU609	Clinker Conveyor 3	EP604	CD604	Dust collector	68,255	8,000	5.143	5.143
EU610	Clinker Storage Bin	EP604	CD604	Dust collector	68,255	8,000	5.143	5.143
F601	Clinker Stockpile	-	-	Fugitive	184,705	8,760	6.942	3.309
EU611	Clinker Silos	EP605	CD605	Dust collector	799,000	8,000	2.891	2.891
F602	Gypsum Stockpile	-	-	Fugitive	51,000	8,760	0.947	0.471
F603	Gypsum Unloading/Conveying	-	-	Fugitive	51,000	8,760	0.05	0.05
F604	Gypsum Crusher	-	-	Fugitive	51,000	8,760	0.867	0.434
EU612	Gypsum Elevator	EP605	CD605	Dust collector	51,000	8,000	2.891	2.891
EU613	Gypsum Silo	EP605	CD605	Dust collector	51,000	8,000	2.891	2.891
EU801	Cement Silos (5)	EP801	CD801	C Dust	850,000	8,760	1.727	1.727

Source No.	EU Description	Emisión Point No.	Control Device No.	Required Control Device	Max. Annual Throughput (tons/year)*	Maximum # of hours (hr/yr)*	Max. TSP Emissions (tons/year) *	Max. PM ₁₀ Emissions (tons/year) *
				collector				
EU802	Truck Loadout #2	EP802	CD802	Dust collector	252,875	4,215	2.890	2.890
EU803	Truck Loadout #4	EP803	CD803	Dust collector	252,875	4,215	2.890	2.890
EU804	Screw Conveyors	EP801	CD801	Dust collector	340,000	4,857	0.958	0.958
F801	FLS Packaged Cement Storage	-	-	Fugitive	340,000	8,760	5.503	2.603
F802	Car Ventomatic Package Cement Storage	-	-	Fugitive	170,000	8,760	2.752	1.301
F803	Plant Haul Road	-	-	Fugitive	39,884	8,760	8.367	4.184
						Total:	85.668	72.612

- * Not a limiting restriction if condition 7 of the PSD non-applicability permit conditions, which provides for operational flexibility, is implemented.
- a Actual hours of operation for the units listed under Other Equipment are determined (calculated) using final throughput values.

Appendix III – Control Devices Description

ID	Type	Number	Manufacturer	Model	Flux Rate
CD201	Water Sprayer	***	Unknown	Unknown	***
CD202	Water Sprayer	***	Unknown	Unknown	***
CD203	Water Sprayer	***	Unknown	Unknown	***
CD204	Water Sprayer	***	Unknown	Unknown	***
CD205	Water Sprayer	***	Unknown	Unknown	***
CD210	Water Sprayer	***	Unknown	Unknown	***
CD211	Water Sprayer	***	Unknown	Unknown	***
CD212	Water Sprayer	***	Unknown	Unknown	***
CD301	Jet Pulse	F-12	Griffen	JA-72-8A	3,400
CD302	Jet Pulse	G-12	Griffen	JA-400-DA	22,000
CD303	Jet Pulse	H-09	Griffen	JA-120-SA	6,000
CD401	Jet Pulse	F1P01	Fuller	CE1-4-06	5,500
CD402	Jet Pulse	F1P04	Fuller	CEC1-1-05	2,500
CD403	Jet Pulse	K1P01	Fuller	7N-Y36	1,200
CD404	Jet Pulse	K1P05	Fuller	CEC2-16-40	40,000
CD405	Jet Pulse	WOP01	Fuller	CEC1-1-05	2,500
CD501	Reverse Air	***	Fuller-Dracco	96	210,000
CD502	Reverse Air	***	Wheelabrator	1265R	300,000
CD503	Cyclones (2)	K08	Unknown	NA	76,464
CD504	Coal Cyclone	K1P13	Alon-Car	NA	10,912
CD601	Jet Pulse	***	Torit	TD486	850
CD602	Jet Pulse	***	Torit	TD486	850
CD603	Plenum - Pulse	K395	Fuller	96-6-6000	31,300
CD604	Jet Pulse	K397	Fuller	Unknown	30,000
CD605	Plenum - Pulse	K400	Fuller	96-4-4000	21,080

ID	Type	Number	Manufacturer	Model	Flux Rate
CD701	Jet Pulse	***	Torit	Unknown	8,500
CD702	Jet Pulse	***	Unknown	Unknown	1,200
CD703	Jet Pulse	***	Torit	TD486	1,000
CD704	Reverse Air	MO2110	Fuller-Dracco	9RP	46,000
CD705	Jet Pulse	***	Torit	Downflo II	8,500
CD706	Reverse Air	MO3090	Unknown	Unknown	22,358
CD707	Plenum - Pulse	MO3160	Fuller-Dracco	Mark II	18,000
CD801	Plenum - Pulse	1,000	Norblo	216	4,600
CD802	Jet Pulse	***	Torit	TD650	8,000
CD803	Jet Pulse	***	Torit	TD650	8,000
CD804	Jet Pulse	***	Aeropulse	PR-180-10-H-H	12,000
CD805	Jet Pulse	***	Fuller	Unknown	12,000
CD806	Plenum - Pulse	***	Norblo	Unknown	12,000
CD810	***	***	Unknown	Unknown	***
CD811	***	***	Unknown	Unknown	***
CD812	***	***	Unknown	Unknown	***
CD813	***	***	Unknown	Unknown	***